

What is claimed is:

1           1.       An isolated nucleic acid molecule selected from the group consisting of:

2           a)       a nucleic acid molecule comprising a nucleotide sequence which is at least 55%  
3 identical to the nucleotide sequence of SEQ ID NO:1, 2, 19, 20, the cDNA insert of the plasmid  
4 deposited with the ATCC as Accession Number 207190 or 207191, or a complement thereof;

5           b)       a nucleic acid molecule comprising a fragment of at least 300 nucleotides of the  
6 nucleotide sequence of SEQ ID NO:1, 2, 19, 20, the cDNA insert of the plasmid deposited with the  
7 ATCC as Accession Number 207190 or 207191, or a complement thereof;

8           c)       a nucleic acid molecule which encodes a polypeptide comprising the amino acid  
9 sequence of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert of the  
10 plasmid deposited with the ATCC as Accession Number 207190 or 207191;

11          d)       a nucleic acid molecule which encodes a fragment of a polypeptide comprising the  
12 amino acid sequence of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert  
13 of the plasmid deposited with the ATCC as Accession Number 207190 or 207191, wherein the  
14 fragment comprises at least 15 contiguous amino acids of SEQ ID NO:3, 21, or the amino acid  
15 sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession  
16 Number 207190 or 207191.

17          e)       a nucleic acid molecule which encodes a naturally occurring allelic variant of a  
18 polypeptide comprising the amino acid sequence of SEQ ID NO:3, 21, or the amino acid sequence  
19 encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number 207190  
20 or 207191, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule comprising SEQ  
21 ID NO:2, 20, or a complement thereof under stringent conditions.

1           2.       The isolated nucleic acid molecule of claim 1, which is selected from the group  
2 consisting of:

3           a)       a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, 2, 19, 20, the  
4 cDNA insert of the plasmid deposited with the ATCC as Accession Number 207190 or 207191, or a  
5 complement thereof; and

6           b)       a nucleic acid molecule which encodes a polypeptide comprising the amino acid  
7 sequence of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert of the  
8 plasmid deposited with the ATCC as Accession Number 207190 or 207191.

1           3.       The nucleic acid molecule of claim 1 further comprising vector nucleic acid  
2 sequences.

1           4.       The nucleic acid molecule of claim 1 further comprising nucleic acid sequences  
2 encoding a heterologous polypeptide.

1           5.       A host cell which contains the nucleic acid molecule of claim 1.

1           6.       The host cell of claim 5 which is a mammalian host cell.

1           7.       A non-human mammalian host cell containing the nucleic acid molecule of claim 1.

1           8.       An isolated polypeptide selected from the group consisting of:

2           a)       a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or  
3 21, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:3 or 21;

4           b)       a naturally occurring allelic variant of a polypeptide comprising the amino acid  
5 sequence of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert of the  
6 plasmid deposited with the ATCC as Accession Number 207190 or 207191, wherein the polypeptide  
7 is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ  
8 ID NO:2, 20, or a complement thereof under stringent conditions; and

9           c)       a polypeptide which is encoded by a nucleic acid molecule comprising a nucleotide  
10 sequence which is at least 60% identical to a nucleic acid comprising the nucleotide sequence of SEQ  
11 ID NO:2, 20, or a complement thereof.

1           9.       The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID  
2 NO:3 or 21.

1           10.      The polypeptide of claim 8 further comprising heterologous amino acid sequences.

1           11.      An antibody which selectively binds to a polypeptide of claim 8.

1           12.      A method for producing a polypeptide selected from the group consisting of:

2           a)       a polypeptide comprising the amino acid sequence of SEQ ID NO:3 or 21, or the  
3 amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as  
4 Accession Number 207190 or 207191;  
5           b)       a polypeptide comprising a fragment of the amino acid sequence of SEQ ID NO:3,  
6 21, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC  
7 as Accession Number 207190 or 207191, wherein the fragment comprises at least 15 contiguous  
8 amino acids of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert of the  
9 plasmid deposited with the ATCC as Accession Number 207190 or 207191; and  
10          c)       a naturally occurring allelic variant of a polypeptide comprising the amino acid  
11 sequence of SEQ ID NO:3, 21, or the amino acid sequence encoded by the cDNA insert of the  
12 plasmid deposited with the ATCC as Accession Number 207190 or 207191, wherein the polypeptide  
13 is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ  
14 ID NO:1 or 19, or a complement thereof under stringent conditions;  
15           comprising culturing the host cell of claim 5 under conditions in which the nucleic acid  
16 molecule is expressed.

1           13.       A method for detecting the presence of a polypeptide of claim 8 in a sample,  
2 comprising:

3           a)       contacting the sample with a compound which selectively binds to a polypeptide of  
4 claim 8; and  
5           b)       determining whether the compound binds to the polypeptide in the sample.

1           14.       The method of claim 13, wherein the compound which binds to the polypeptide is an  
2 antibody.

1           15.       A kit comprising a compound which selectively binds to a polypeptide of claim 8 and  
2 instructions for use.

1           16.       A method for detecting the presence of a nucleic acid molecule of claim 1 in a  
2 sample, comprising the steps of:

3           a)       contacting the sample with a nucleic acid probe or primer which selectively  
4 hybridizes to the nucleic acid molecule; and  
5           b)       determining whether the nucleic acid probe or primer binds to a nucleic acid  
6 molecule in the sample.

1           17.     The method of claim 16, wherein the sample comprises mRNA molecules and is  
2 contacted with a nucleic acid probe.

1           18.     A kit comprising a compound which selectively hybridizes to a nucleic acid molecule  
2 of claim 1 and instructions for use.

1           19.     A method for identifying a compound which binds to a polypeptide of claim 8  
2 comprising the steps of:  
3           a)     contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test  
4 compound; and  
5           b)     determining whether the polypeptide binds to the test compound.

1           20.     The method of claim 19, wherein the binding of the test compound to the polypeptide  
2 is detected by a method selected from the group consisting of:  
3           a)     detection of binding by direct detecting of test compound/polypeptide binding;  
4           b)     detection of binding using a competition binding assay;  
5           c)     detection of binding using an assay for human or murine A259-mediated signal  
6 transduction.

1           21.     A method for modulating the activity of a polypeptide of claim 8 comprising  
2 contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound which binds  
3 to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

1           22.     A method for identifying a compound which modulates the activity of a polypeptide  
2 of claim 8, comprising:  
3           a)     contacting a polypeptide of claim 8 with a test compound; and  
4           b)     determining the effect of the test compound on the activity of the polypeptide to  
5 thereby identify a compound which modulates the activity of the polypeptide.

1           23.     A method for treating liver disease comprising administering a compound which  
2 inhibits the expression or activity of A259.

1           24.     The method of claim 23 wherein the liver disease is liver fibrosis.

- 1            25.    The method of claim 23 wherein the compound is an antibody which binds A259.
- 1            26.    The method of claim 25 wherein the antibody binds to the extracellular domain of  
2 A259.
- 1            27.    The method of claim 23 wherein the compound is a polypeptide comprising a  
2 fragment of the extracellular domain of A259.
- 1            28.    A method of treating fibrosis comprising administering a compound which inhibits  
2 the expression or activity of A259.
- 1            29.    The method of claim 28 wherein the fibrosis is kidney fibrosis.
- 1            30.    The method of claim 28 wherein the fibrosis is lung fibrosis.